

Federal Student Aid (FSA) Students Portal Rollout – Release 1

Test Approach

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1 INTRODUCTION

1.1 Summary

This document will provide an overview of the testing necessary to ensure that the FSA Students Portal Rollout has been implemented according to the requirements as defined for Release 1. This document outlines schedule, approach, and deliverables for System Integration, 508 Compliance, Usability, Performance and User Acceptance Testing.

1.2 Audience

This document is intended for individuals who will be involved with the design, development and acceptance of FSA Students Portal Rollout Release 1.

2 TESTING APPROACH

2.1 Statement of Work

The objective of this phase is to verify that the application complies with the Requirements Definition Document, the Preliminary Design Document, and the Detailed Design documents.

The following specific tests are currently planned:

- Unit Test: This will be performed by the Portal designer/developer. This Unit test is intended to confirm that the functionality developed is processing correctly and to catch defects before they reach the next stages of testing.
- 508 Compliance Test: This will be performed by FSA's 508 Compliance review team. This 508 Compliance Test is intended to ensure the Students Portal meets the 508 compliance standards for accessibility.
- System Integration Test: This will be performed by the Portals testing team. This System Integration Test is intended to verify that the functionality delivered meets the requirements that have been identified for the Students Portal Rollout Release 1.
- Usability Test: This will be performed by UserWorks, a subcontractor specializing in usability testing. This Usability Test is intended to measure and quantify the usability of the Students Portal, to identify areas for improvement and to make usability recommendations. This testing will ensure that the application will meet the needs of the target user.

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Release 1 – Test Approach

- Performance Test: This will be performed by the Portals Development Team in conjunction with the ITA team. This Performance Test is intended to evaluate the compliance of the Students Portal with specified performance requirements.
- User Acceptance Test (UAT): This will be performed by a group of users within the Students channel. This User Acceptance Test (UAT) is intended to serve as formal system acceptance.

2.2 Defect Severity Levels

The following severity levels are established to aid communications during the testing process:

Severity 1 Defects - Resolution of this class of defect will be given the highest priority.	Defects are critical in nature and result in full or partial system failure, do not have acceptable workarounds, and demand immediate action.
Severity 2 Defects - Resolution of this class of defect will begin after all severity 1 defects have been addressed.	Defects are non-critical in nature resulting in intermittent system failure or problems, do have acceptable workarounds, and do not prohibit the users from performing their tasks.
Severity 3 Defects - Resolution of this class of defect will begin as time allows.	Defects do not stop system operation, do have acceptable workarounds, are cosmetic in nature, have minimal effect on the system, do not prohibit the users from performing their tasks, and have the least priority.

2.3 Defect Tracking Process

ClearQuest will be used to record and manage software defects. Once an incident has been identified it should be logged in ClearQuest. The SIR administrator will assign a degree of impact (severity 1, severity 2, or severity 3) and assign it to the appropriate developer to make the fix.

2.4 Entry and Exit Criteria

Entry and exit criteria are predefined standards that deliverables must meet before exiting from one stage and entering another.

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The following criteria are defined for passing software from one stage to the next. These criteria are:

- The exit criteria from Development's Unit Test will be done prior to System Integration Test.
- The entrance criteria for System Integration Test will be performed prior to 508 Compliance and Usability Test.
- The exit criteria from System Integration Test and the entrance criteria from 508 Compliance and Usability Test will be done prior to Performance and User Acceptance Test (UAT) and thus formal system acceptance criteria.

Criteria	Validation Method
Test plan and expected results completed.	Documentation complete and appropriately reviewed.
Software installed in test environment	Review change document/email created by Students Portal development team (should include a list of the changes made and the associated versions).
Prior stage testing complete and: <ul style="list-style-type: none">• No known Severity 1 defects• All Severity 2 defects have an identified solution• All Severity 3 defects documented	Review of prior stage test execution logs and defect list.

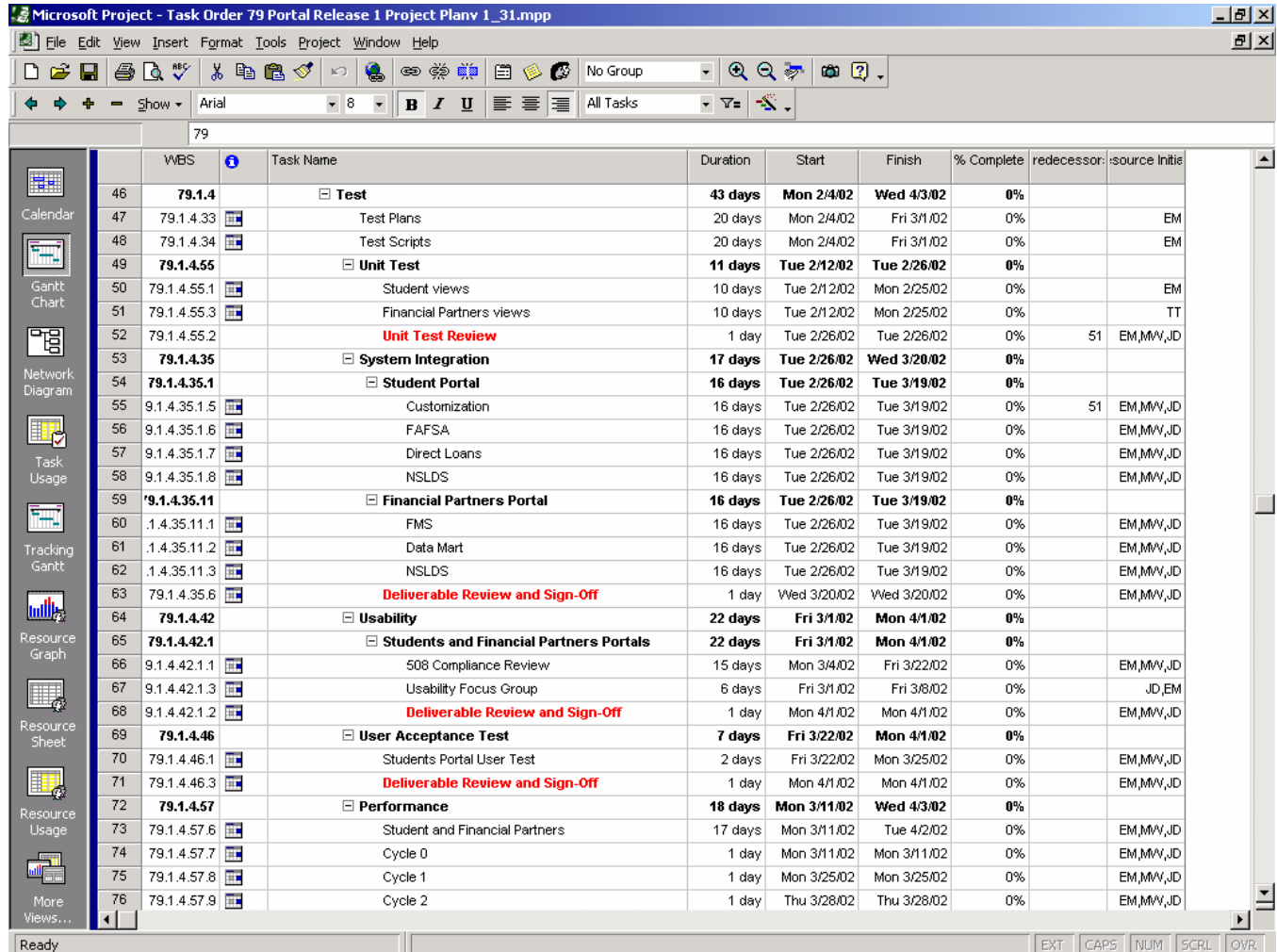
Ideally, all criteria must be met before a deliverable is passed from one stage to another. However, in practice, exceptions may be required in some circumstances.

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3 SCHEDULE AND APPROACH

3.1 Overall Schedule

The project plan dates for testing activities are:



	WBS	Task Name	Duration	Start	Finish	% Complete	Predecessor	Resource	Initials
46	79.1.4	Test	43 days	Mon 2/4/02	Wed 4/3/02	0%			
47	79.1.4.33	Test Plans	20 days	Mon 2/4/02	Fri 3/1/02	0%		EM	
48	79.1.4.34	Test Scripts	20 days	Mon 2/4/02	Fri 3/1/02	0%		EM	
49	79.1.4.55	Unit Test	11 days	Tue 2/12/02	Tue 2/26/02	0%			
50	79.1.4.55.1	Student views	10 days	Tue 2/12/02	Mon 2/25/02	0%		EM	
51	79.1.4.55.3	Financial Partners views	10 days	Tue 2/12/02	Mon 2/25/02	0%		TT	
52	79.1.4.55.2	Unit Test Review	1 day	Tue 2/26/02	Tue 2/26/02	0%	51	EM,MVV,JD	
53	79.1.4.35	System Integration	17 days	Tue 2/26/02	Wed 3/20/02	0%			
54	79.1.4.35.1	Student Portal	16 days	Tue 2/26/02	Tue 3/19/02	0%			
55	9.1.4.35.1.5	Customization	16 days	Tue 2/26/02	Tue 3/19/02	0%	51	EM,MVV,JD	
56	9.1.4.35.1.6	FAFSA	16 days	Tue 2/26/02	Tue 3/19/02	0%		EM,MVV,JD	
57	9.1.4.35.1.7	Direct Loans	16 days	Tue 2/26/02	Tue 3/19/02	0%		EM,MVV,JD	
58	9.1.4.35.1.8	NSLDS	16 days	Tue 2/26/02	Tue 3/19/02	0%		EM,MVV,JD	
59	79.1.4.35.1.1	Financial Partners Portal	16 days	Tue 2/26/02	Tue 3/19/02	0%			
60	1.4.35.11.1	FMS	16 days	Tue 2/26/02	Tue 3/19/02	0%		EM,MVV,JD	
61	1.4.35.11.2	Data Mart	16 days	Tue 2/26/02	Tue 3/19/02	0%		EM,MVV,JD	
62	1.4.35.11.3	NSLDS	16 days	Tue 2/26/02	Tue 3/19/02	0%		EM,MVV,JD	
63	79.1.4.35.6	Deliverable Review and Sign-Off	1 day	Wed 3/20/02	Wed 3/20/02	0%		EM,MVV,JD	
64	79.1.4.42	Usability	22 days	Fri 3/1/02	Mon 4/1/02	0%			
65	79.1.4.42.1	Students and Financial Partners Portals	22 days	Fri 3/1/02	Mon 4/1/02	0%			
66	9.1.4.42.1.1	508 Compliance Review	15 days	Mon 3/4/02	Fri 3/22/02	0%		EM,MVV,JD	
67	9.1.4.42.1.3	Usability Focus Group	6 days	Fri 3/1/02	Fri 3/8/02	0%		JD,EM	
68	9.1.4.42.1.2	Deliverable Review and Sign-Off	1 day	Mon 4/1/02	Mon 4/1/02	0%		EM,MVV,JD	
69	79.1.4.46	User Acceptance Test	7 days	Fri 3/22/02	Mon 4/1/02	0%			
70	79.1.4.46.1	Students Portal User Test	2 days	Fri 3/22/02	Mon 3/25/02	0%		EM,MVV,JD	
71	79.1.4.46.3	Deliverable Review and Sign-Off	1 day	Mon 4/1/02	Mon 4/1/02	0%		EM,MVV,JD	
72	79.1.4.57	Performance	18 days	Mon 3/11/02	Wed 4/3/02	0%			
73	79.1.4.57.6	Student and Financial Partners	17 days	Mon 3/11/02	Tue 4/2/02	0%		EM,MVV,JD	
74	79.1.4.57.7	Cycle 0	1 day	Mon 3/11/02	Mon 3/11/02	0%		EM,MVV,JD	
75	79.1.4.57.8	Cycle 1	1 day	Mon 3/25/02	Mon 3/25/02	0%		EM,MVV,JD	
76	79.1.4.57.9	Cycle 2	1 day	Thu 3/28/02	Thu 3/28/02	0%		EM,MVV,JD	

Note: Any changes in the development timeframes will have significant effect on this plan.

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3.2 Unit Test

Each development team will plan and execute a unit test for their respective portal component. The development team will develop unit test conditions and expected results and prepare and execute the unit test scripts to verify that the capability developed is functioning correctly.

3.3 508 Compliance Test

The Portals Testing Lead will be responsible for the planning of the 508 Compliance Test. The Portals testing team will develop test conditions and expected results and a FSA 508 compliance review team will execute these scripts to ensure the Students Portal meets the 508 compliance standards for accessibility.

As issues are identified through the 508 Compliance test they will be communicated to the Students Portal Rollout development team, resolved and retested.

3.4 System Integration Test

The Portals Testing Lead will be responsible for the planning and execution of the System Integration Test. The testing team will develop system integration test conditions and expected results, prepare and execute the SIT script, verify and document expected results, track software defects, and regression test.

As issues are identified through the system integration test they will be communicated to the Students Portal Rollout development team, resolved and retested. This process will allow early detection of potential issues and allow us time for resolution.

3.5 Usability Test

The Portals Testing Lead will be responsible for the planning of the Usability Test. A group of 5 to 10 students will execute test scripts/scenarios that will be developed by the Portals test team with the assistance of UserWorks, a subcontractor specializing in usability testing. UserWorks will monitor the progress of the students and provide feedback to the Students Portal team.

As issues are identified through the usability test they will be communicated to the Students Portal Rollout development team, resolved and retested.

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3.6 Performance Test

The Portals Development Lead, along with the ITA team will be responsible for the planning of the Performance Test. A four-cycle test is planned. Each cycle will test a different performance scenario. The testing team will develop performance test conditions and expected results and the ITA team will execute these scripts.

As issues are identified through the performance test they will be communicated to the Students Portal Rollout development team, resolved and retested.

3.7 User Acceptance Test (UAT)

User Acceptance Test will be a full execution of UAT Test scenarios with the direct hands-on involvement of end users. The testing team will document specific UAT test cycles and conduct these scripts with the active involvement of FSA Students Channel User Group. FSA resources will execute the UAT scripts with support from the Portals test team. The Portals Testing Lead will be responsible for the execution of the UAT.

As issues identified through the user acceptance test will be communicated to the Students Portal Rollout development team, resolved and retested.

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4 RESOURCES

The following Modernization Partner resources will be involved in testing:

Category	Individuals
System Integration Test:	<ul style="list-style-type: none">• Erick Middleton – Team Lead• Anne Jensen• Teale Taggart• Brent Urcheck• Bryan Hykes
508 Compliance Test:	<ul style="list-style-type: none">• Erick Middleton – Team Lead• Bryan Hykes• TBD
Usability Test:	<ul style="list-style-type: none">• Erick Middleton – Team Lead• UserWorks Staff• UserWorks Staff• Bryan Hykes
Performance Test:	<ul style="list-style-type: none">• Matt Wilson – Team Lead• ITA Staff• ITA Staff• Mercury Interactive Staff
User Acceptance Test (UAT)	<ul style="list-style-type: none">• Erick Middleton – Team Lead• Bryan Hykes

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5 DELIVERABLES

The following are the major deliverables associated with FSA Students Portal Rollout Release 1.

5.1 Overall Test Approach

This document will serve as the overall test approach. The test approach for FSA Students Portal Rollout Release 1 includes the following levels of testing:

- Unit Test
- 508 Compliance Test
- System Integration Test
- Usability Test
- Performance Test
- User Acceptance Test (UAT)

5.2 Test Plan

Three test plans will be created for FSA Students Portal Rollout Release 1. The Performance Test Plan consists of the performance test process, roles, responsibilities and deliverables, and the detailed goals per cycle. The System Integration Test Plan consists of the system integration test scope, roles and responsibilities, Execution and Validation test cases, and Test Cases/Scenarios. The User Acceptance Test (UAT) Plan consists of the UAT scope, roles and responsibilities, Execution and Validation test cases and Test Cases/Scenarios.

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6 ISSUES / QUESTIONS

The following issues /questions related to the overall Test Approach.

Issue	Resolution

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